

CLEAN

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NAVAL AIR STATION MOFFETT FIELD
MOUNTAIN VIEW, CALIFORNIA

INFERRED SOURCES 8 AND 9
WORK PLAN

NAVY RESPONSE TO EPA AND DHS COMMENTS

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TABLE OF CONTENTS

<u>Section</u>		<u>Page</u>
1.0	INTRODUCTION	1
2.0	INCORPORATION OF EPA COMMENTS	1
3.0	INCORPORATION OF DHS COMMENTS	6

1.0 INTRODUCTION

PRC Environmental Management, Inc., (PRC) and James M. Montgomery, Consulting Engineers, Inc., (JMM) received Contract Task Order (CTO) No. 0030 from the Navy's Western Division, Naval Facilities Engineering Command (NAVFACENCOM), under Contract No. N62474-88-D-5086. CTO 0030 calls for PRC and JMM to perform several tasks at NAS Moffett Field, including conducting site investigation at Inferred Sources IS 8 and 9.

In July 1990, the Draft Work Plan for the IS 8 and 9 areas was submitted to regulatory agencies for review. On August 15, 1990, NAVFACENCOM received comments from the U.S. Environmental Protection Agency (EPA) and the California Department of Health Services (DHS). This document provides responses to the agency comments and describes how the comments were incorporated into the Action Memorandum.

2.0 INCORPORATION OF EPA COMMENTS

Incorporation of EPA's comments into the Sites IS 8 and 9 Work Plan is described below. The comment numbers correspond to those provided to NAVFACENCOM by EPA.

GENERAL COMMENTS

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|-------------------|---|
| General Comment 1 | This work plan is a combined work plan and sampling plan for the proposed investigation. As such, all required elements of a Sampling and Analysis Plan must be included. The current EPA guidance document, Preparation of a U.S. EPA Region 9 Field Sampling Plan for Private and State-Lead Superfund Projects, April 1990, (Document Control No. 9QA-06-89), should be reviewed and missing elements as identified in the specific comments incorporated. |
| Navy Response | As indicated in the comment, this document is a combined work plan and sampling and analysis plan. While the contents may not be listed and formatted in the same form and order as suggested in the referenced document, the necessary data and documentation is provided and readily accessible for use by the field personnel. |
| General Comment 2 | All wastewaters and soils, including purge water, development water, decontamination water, and drill cuttings must be contained until it is determined if these materials are hazardous or may pose a threat to human health and the environment. The specific procedures and criteria for determining the ultimate disposition of wastewaters and soil must be included. |
| Navy Response | All waste soils and liquids will be handled in manners as necessary to comply with current local, state and federal CERCLA requirements. |

SPECIFIC COMMENTS

Specific Comment 1.	Page 7, paragraph 3: The street names listed in this paragraph should be shown on the location figure.
Navy Response	Streets names have been included in Figure 2.
Specific Comment 2	Page 9, paragraph 3: The regional groundwater flow direction should be shown on Figure 2, which should be referenced in this paragraph.
Navy Response	The figure has been revised to indicate the regional groundwater flow direction.
Specific Comment 3	Page 9, paragraph 3: An explanation for the size and shape of the inferred source areas, as identified on Figure 2, should be included.
Navy Response	The explanation for the size and shape for IS 8 and 9 are included in Section 2.4 as indicated.
Specific Comment 4	Pages 12-16: It is not clear from the text that data presented is the most recent available. Has water level data been collected more recently?
Navy Response	The dates of the data are indicated in Section 2.2.4, paragraph 6, sentence 4 of the Final Work Plan. These data represent the most recent available <i>complete</i> data set for IS 8 and 9.
Specific Comment 5	Page 17, last paragraph: The location of the soil boring should be shown on a figure, or the well number which corresponds with the soil boring should be identified in the text.
Navy Response	The boring locations have been included on Figure 2.
Specific Comment 6	Page 18, third paragraph: Complete soil results should be included in an appendix which should be referenced in this section.
Navy Response	The laboratory results are referenced (HLA, 1988).
Specific Comment 7	Page 35, last paragraph: Plate 1.2-5 is missing.
Navy Response	This was a typographical error. The correct Figure is Figure 2.
Specific Comment 8	Page 37, Section 2.4.2.1: Soil boring EB-32, which apparently corresponds with hole 78B1, which was not located within the defined source area, therefore it could not determined if contamination was present in the source area. These facts should be reflected in the text. Soil boring 5C is not shown in a figure. The text of this section should be revised.
Navy Response	This paragraph has been revised to reflect the location of borings relative to the referenced inferred sources.
Specific Comment 9	Page 40, Task 2: Rationale for selection of the wells to be sampled should be included. Also, the rationale for eliminating key MEW wells from consideration should be discussed.
Navy Response	This section has been revised to provide the requested information.

Specific Comment 10	Page 40, last sentence: In addition to measuring water levels prior to sampling, a separate task should be considered to obtain a "snapshot" of all water levels. Wells to be included in the water level measurement task should be indicated in the revised text.
Navy Response	Water levels will be taken at as many well as may be accessible be develop piezometric elevation maps.
Specific Comment 11	Page 42, second paragraph: Deliverables for Task 2 should include current water level maps for all aquifers.
Navy Response	This task has been included.
Specific Comment 12	Page 42, second paragraph: The rationale for selection of TCE and TCA should be presented as well as the rationale for selection of the individual wells for which data will be displayed.
Navy Response	The indicated wells were selected due to their proximity to the inferred sources areas or the provided areal coverage at the site. The rationale for TCE and TCA has been provided.
Specific Comment 13	Page 42, paragraph 2: Under specific deliverables for Task 2: second bullet is the same as the first.
Navy Response	The second bullet has been deleted.
Specific Comment 14	Page 46: The discussion regarding soil gas sampling should indicate which compounds are bing tested for as well as the type of detector to be used and detection limits. If this is discussed later in the document, the appropriate section should be referenced here. QA/QC procedures and criteria for soil gas sampling should also be included or attached. The EPA QA/QC Level of soil gas samples, and the proposed use of that data with respect to the QA/QC Level should be presented.
Navy Response	Compounds to be tested for are indicated in Section 4.3.1. QA/QC data applicable to the soil gas analyses are indicated in the QA/QC Plan (IT, March 1988).
Specific Comment 15	Page 47, paragraph 1: Standard procedures for CPT use should be included or attached.
Navy Response	The reader is referenced to the IT QAPP (March 1988).
Specific Comment 16	Page 47, paragraph 2: The analytical method and QA/QC procedures for the on-site laboratory should be discussed here or in Section 5.0
Navy Response	The applicable EPA method has been included.
Specific Comment 17	Page 47, paragraph 2: The EPA QA/QC level for HydroPunch samples analyzed at an on-site laboratory should be described. The anticipated use of the data should be discussed with respect to the QA level.
Navy Response	The HydroPunch data is intended to be used on as a guidance tool for the installation of monitoring wells. The data HydroPunch and soil gas investigations will be provided; however, they are not intended for enforcement use.

Specific Comment 18	Page 48, first sentence: The basis for the inferred limits of IS 8 and IS 9 should be stated.
Navy Response	This sentence has been revised to refer to (the HLA reports.
Specific Comment 19	Page 48, paragraph 2: Contamination in the bottom most samples can not be routinely dismissed. Migration from the capillary fringe must be considered on a case by case basis. This sentence should be revised.
Navy Response	Contamination in the bottom-most sample would not be dismissed. The statement merely makes the objective observation that soil contamination in the bottom-most soil sample may be the result of several mechanisms. Two of these include vertical migration upward and downward.
Specific Comment 20	Page 48, paragraph 2: The discussion of analyses to be performed should include the EPA Method numbers, or should reference a section in the document where this is discussed (e.g., Moffett's RI/FS QAPP).
Navy Response	Method number are indicated in Tables 3 and 4.
Specific Comment 21	Page 48, paragraph 2, last four words: The sentence should be rephrased to indicate that soil types, not soil borings are identified. HPT should be CPT.
Navy Response	This sentence has been revised and corrected.
Specific Comment 22	Page 49, paragraph: The basis for the location, size, and shape of IS 8 and IS 9 as shown in the figures should be stated in the text, so that the reader can evaluate the proposed placement of borings and monitoring wells. Why is IS 9 larger than IS 8?
Navy Response	The IS area and shapes have been previously referenced and discussed in Section 2.1.
Specific Comment 23	Page 51, first paragraph: The EPA method numbers should be stated, or a section containing that information referenced.
Navy Response	The applicable table has been referenced.
Specific Comment 24	Page 55, last paragraph: Samples for volatile analysis are generally collected in brass sleeves.
Navy Response	Where possible, VOC samples will be collected in brass sleeves. This may not be applicable when coring. When coring, samples will be bottled as described in Section 4.3.2.3.2.
Specific Comment 25	Page 56, paragraph 1: Explain the procedure for compositing soil samples.
Navy Response	The compositing procedure is included in Section 4.3.2.3.2.
Specific Comment 26	Page 58, section 4.3.3.3: Purge water from well development must be contained. Add a method or procedure for containing the purge water to this section or reference a section where containment procedures are presented.
Navy Response	Purge water will be handled as described in Section 4.6.

Specific Comment 27	Page 61, paragraph 1, last sentence: Purge water from well sampling must be contained. Please revise this sentence so that it is clear that the water will be contained.
Navy Response	See Navy response to specific comment 26.
Specific Comment 28	Page 62, Paragraph 1: U.S. EPA Region IX guidelines for decontamination must be followed. These decontamination procedures involve one DI rinse after tap water rinse, then pesticide grade solvent rinse (when semi-volatile or non-volatile organic contamination may be present), then double DI rinse followed by HPLC water rinse. The paragraph should be revised to reflect current guidance.
Navy Response	This section has been revised to follow EPA guidelines.
Specific Comment 29	Page 62, paragraph 2: This section should discuss the procedures for containing decontamination fluids or reference an appropriate section. All decontamination fluids must be contained.
Navy Response	The appropriate section has been referenced.
Specific Comment 30	Page 69, Table 3: This table suggests that cation analysis will be performed for soil samples. This was not discussed in the text. Please revise the text or the table.
Navy Response	The table has been revised.
Specific Comment 31	Page 70, Table 4: All decontamination wastes must be containerized and placed in an containerized area designed for such purposes.
Navy Response	Table 4 has been revised. Analyses to be conducted conform with the approved QAPP (IT, March 1988). Field samples will be analyzed for VOCs only.
Specific Comment 32	Page 89, paragraph 4: All decontamination wastes must be containerized and placed in an containerized area designed for such purposes.
Navy Response	This section has been revised.
Specific Comment 33	Page 89, paragraph 5: The PID meter cannot be used to make a quantitative decision regarding waste characterization. The text should be revised. The text should also describe how the results of water analysis will be used to characterize subsurface saturated soils.
Navy Response	This paragraph has been revised to reflect the additional sampling. Final waste determination will be made by the California Regional Water Quality Control Board (RWQCB).
Specific Comment 34	Page 90, paragraph 1: The specific analytical methods and criteria used to determine if waste is hazardous must be identified. This section should explain how planned disposal complies with state and federal regulations.
Navy Response	This section has been revised. See Navy Response to Specific Comment 33.

Specific Comment 35

Page 91-95, Tables 5-9: The methods and parameters listed in these tables are not consistent with those listed in earlier tables and in the text. The EPA guidance document for preparation of sampling plans (identified in the general comments) should be reviewed and section 5 revised accordingly.

Navy Response

The tables have been revised to reflect levels as required in EPA CLP guidance documents for Region 9.

3.0 INCORPORATION OF DHS COMMENTS

Incorporation of DHS's comments into the Work Plan is described below. The comment numbers correspond to those provided to NAVFACENCOM by DHS.

COMMENTS

Comment 1

A table should be included describing what each type of sample will be analyzed for. In addition, the name of the laboratory that will be used should be included. A California State Certified Lab (certified for all analyses requested) must be used in order for the data to be acceptable.

Navy Response

Tables 3 and 4 indicate the analytes for each sample either soil or water, respectively, which will be analyzed. At the time of the work plan preparation, the name of the state and CLP certified lab was unknown due to Naval procurement procedures.

SPECIFIC COMMENTS

Specific Comment 1

Page 17, section 2.3, sentence 2: Indicate on a map the locations of soil borings 5C and EB-32.

Navy Response

Borings 5C and EB-32 have been included in the final Work Plan.

Specific Comment 2

Page 18, section 2.3.2, first sentence: This sentence makes no sense, please re-write.

Navy Response

This sentence has been revised.

Specific Comment 3

Page 18, section 2.3.2, fourth sentence: This sentence make no sense. What does "as measured from well 68B1" mean? Please re-write.

Navy Response

This sentence has been revised.

Specific Comment 4

Page 19, Table 1: Please explain the heading "Soil Boring". Was boring 5C taken from Well 75A, 68B1 or 5C? The same comment applies to boring EB-32.

Navy Response

Soil Boring 5C is the boring drilled prior to the completion and construction of monitoring well 75A. Likewise, soil boring EB-32 is the boring drilled prior to the completion and construction of monitoring well 88A.

Specific Comment 5	Page 21, Table 2: This data needs to be explained. Include when the results were obtained and reference from what document.
Navy Response	The data were obtained from (HLA, 1988) and indicates the most recent data currently available from the MEW companies.
Specific Comment 6	Page 35, paragraph 1, second sentence: The B1 and B2 aquifer wells should be referenced.
Navy Response	The B2-aquifer wells have been referenced in the text.
Specific Comment 7	Page 35, paragraph 1, third sentence: In order for this conclusion to be drawn, the dates of the well samplings should be included in the text.
Navy Response	The dates of the groundwater samples are indicated in Paragraph 1 of Section 2.3.2.
Specific Comment 8	Page 35, section 2.4.1, paragraph 2: There is no plate 1.2-5.
Navy Response	This sentence has been corrected to "(Figure 2)".
Specific Comment 9	Page 36, paragraph 2, sixth sentence: Include a figure showing the location of the regional plume (both A and B1 aquifers).
Navy Response	The location of the regional TCE plume is included in Appendix A. The PCE plume has not been included since the TCE plume is the most extensive and has the highest concentrations.
Specific Comment 10	Page 36, paragraph 2, seventh sentence: Well RW5A is not located on Figure 8. Please revise the figure.
Navy Response	Figure 8 has been revised and well RW5A included.
Specific Comment 11	Page 27, section 2.4.2.2., first bullet: Indicate on Figure 8 where MEW-76(A) is located.
Navy Response	This was a typographical error. The well number should have been MEW 75A which is indicated on Figure 8.
Specific Comment 12	Page 40, section 3.3: Add Well 67-B1 to the list of existing wells that will be sampled. Well 67-B1 is upgradient of IS 9 and TCE has been detected in the well.
Navy Response	This well has been added to the list.
Specific Comment 13	Page 46, last paragraph: Explain what will occur if the soil gas values do not correlate with groundwater results.
Navy Response	This possibility has been addressed and the paragraph revised.
Specific Comment 14	Page 53, first paragraph, seventh sentence: Polyethylene tubing could cause contamination of the soil gas sample. Tygon or teflon tubing should be used.
Navy Response	This sentence has been revised to reflect the use of Tygon tubing.
Specific Comment 15	page 55, paragraph 5: Reference the section that describes how and where the equipment will be decontaminated.

Navy Response	This paragraph has been revised to reference Section 4.3.4.
Specific Comment 16	Page 57, section 4.3.3.2, paragraph 2: This paragraph should also include the rationale for using a 0.010 inch slot well screen.
Navy Response	This paragraph has been revised.
Specific Comment 17	Page 57, section 4.3.3.2, paragraph 3, second sentence: The filter pack may only extend a maximum of three feet above the top of the screen, not a minimum.
Navy Response	This sentence has been revised.
Specific Comment 18	Page 57, section 4.3.3.2, paragraph 3, third sentence: The bentonite pellets should be allowed to hydrate for a minimum of 1/2 hour before the grout seal is placed. In acidic conditions, pH <7.0, at least 45 minutes is needed for sufficient hydration to occur.
Navy Response	This sentence has been revised.
Specific Comment 19	Page 58, section 4.3.3.3, paragraph 1, sentence 3: Swabbing to develop wells is not allowed as it may cause the well to collapse.
Navy Response	This sentence has been revised to indicate gentle swabbing. This gentle swabbing is felt to be necessary to provide effective development at the well and to provide destruction at any borehole wall cake which may have developed during drilling operations.
Specific Comment 20	Page 65, section 4.3.8: Combustible gas indicators need to be included in this section (Calibration and Maintenance).
Navy Response	Combustible gas indicator calibration has been included as Section 4.3.8.9. No maintenance will be done in the field.
Specific Comment 21	Page 66, section 4.3.8.5: PID meters shall be calibrated, at a minimum, at the beginning of the day and again after field activities have finished at the end of the day.
Navy Response	This sentence has been revised.
Specific Comment 22	Page 68, section 4.4.1.1: Specify what "precleaned containers" refers to. What specifications will they meet?
Navy Response	Sample containers will be either EPA Type II or Type III, precleaned at the factory.
Specific Comment 23	Page 89, section 4.6.1., second paragraph: Decontamination water may not be discharged to the ground unless it has been prove not to be a hazardous waste. All decontamination water must be collected and analyzed prior to disposal.
Navy Response	This paragraph has been revised to meet EPA, RWQCB and DOHS requirements for containerization and testing.

Specific Comment 24

Page 89, section 4.6.2, last sentence: Water samples will not adequately characterize the degree of contamination of saturated soils. These soils will have to be analyzed separately and then a hazardous waste determination made prior to disposal.

Navy Response

This paragraph has been revised. All saturated waste soil containers will be analyzed. Furthermore, soils will be segregated and samples taken frequently enough for analysis to fully characterize each container.

Specific Comment 25

Page 100, section 5.1.3.2, Soil Gas Surveying: Inhalation of released vapors may be a possible route of exposure during the soil gas survey. Air monitoring should be done while this activity is in progress.

Navy Response

This section has been revised to reflect additional monitoring.

Specific Comment 26

Page 107, first paragraph, third bullet: In addition to monitoring for vinyl chloride to determine whether to upgrade the level of PPE, PCE should also be monitored for. TCE should also be a contaminate of concern since it is suspected to be most prevalent at these sites.

Navy Response

This paragraph has been revised to indicate the additional compounds for monitoring and their action levels.

Specific Comment 27

Appendix B: El Camino Hospital is located on Grant Road, not Grand Road.

Navy Response

This figure has been corrected and revised.